



## **JOINT MANAGEMENT PLAN REVIEW**

### **ISSUE BACKGROUND: Ecosystem Protection – Marine Reserves**

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#### **Overview:**

Scientific research has indicated that carefully crafted marine reserves can be effective tools for conservation of biodiversity and habitats. Marine reserves may be used as a means to restore degraded areas and as a precautionary tool to conserve a range of representative habitats and biodiversity. Well-designed reserves generally contain higher species diversity, more abundant species, and larger fish within their boundaries relative to similar areas outside the reserve. They are one of many useful tools needed to prevent, slow, or reverse negative habitat and ecosystem changes within the Sanctuary.

The National Marine Sanctuary Program received approximately 7,000 comments during the scoping period of the Joint Management Plan Review (JMPR) requesting increased protection of the ecosystem by taking the lead in implementing a network of marine reserves in State and Federal waters. The Program also received 1400 signatures on a petition circulated by the fishing community asking that regulatory authority on fishing and reserves remain with existing State and Federal agencies, and that any consideration by the Sanctuary of marine reserves should be based on consensus with the fishing industry. The Sanctuary Program believes that any consideration of reserves should and will be a joint effort with the participation of many diverse stakeholders, including strong participation of the fishing community to tap into their extensive knowledge and to consider socioeconomic impacts of alternative reserve designs, as well as participation from other agencies, environmental organizations and the public.

Where reserve processes led by other agencies are underway, such as the Marine Life Protection Act process led by the California Department of Fish and Game, MBNMS staff will be active participants in that process. Although the Sanctuary program would bring its extensive expertise in ecosystem protection and multi-stakeholder approaches to the issue of reserves, our initial preference in central California is that the actual designation of any reserves in state waters be done under the regulatory authority of the California Department of Fish and Game, provided those reserves are developed within a reasonable period of time and can adequately address the ecosystem and habitat conservation goals of the Sanctuary program. In Federal waters, where there is no current process underway to evaluate the potential for reserves, the Sanctuary would work with NMFS, the Pacific Fisheries Management Council, the fishing community, environmental organizations, and others to conduct such an evaluation. The MBNMS has also been actively working with the industry-led Alliance of Communities for Sustainable Fisheries in their evaluation of



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marine reserves, and will continue sharing information and seeking common ground with that group.

### **Workgroup planning:**

To address the issue of properly protecting the Sanctuary's marine ecosystem via marine reserves, the MBNMS has developed this Workgroup of the Sanctuary Advisory Council to provide guidance on several aspects of marine reserves. First, the Workgroup will be asked to outline the framework for providing input to CDFG on the design and implementation of reserves under the MLPA, evaluating the success of that effort and potential need for further action. The Workgroup will also help develop a framework to address the need for, and if necessary, general criteria for and types of marine reserves in the federal waters of the Sanctuary. The MBNMS will work closely with fisherman, and other interested parties, and state and federal fishery managers to implement the marine reserves.

These frameworks will describe the process, goals and criteria for an effective marine reserve network and would become the basis of an action plan in the revised Sanctuary management plan. Although the revised management plan itself is not likely to specify exact locations for reserves, it could specify the types of habitats, general locations and other criteria required for an effective reserve network across state and federal waters.

As a starting point for Workgroup discussions to provide recommendations for this framework plan, a list of potential topics to be addressed is provided below. The Workgroup will be asked to review, revise and add to or delete items from this topic list during the course of its meetings over the next four months, and to jointly develop specific, more detailed recommendations for those topics which emerge as priorities. These recommendations will provide the basis for a longer-term work program for implementation, with continued involvement by the Workgroup.

**Goal of a marine reserves plan:** The Sanctuary's goal for marine reserves is best stated by language directly from the National Marine Sanctuary Act that states one of the overarching goals of the Sanctuary program. That goal is to "Maintain the natural biological communities in the national marine sanctuaries, and to protect, and where appropriate, restore and enhance natural habitats, populations and ecological processes." In addition, an important goal for marine reserves is to design them in such a way that they allow for the long-term continuation of sustainable fisheries in the Sanctuary, as fisheries are a key cultural and economic component of the region.

### Categories of the Plan:

As a starting point for Workgroup discussions, a list of potential categories of topics to be addressed in the framework plan is included below.

#### Habitats and ecosystems to be protected—

- Range of representative habitat types—e.g. hard bottom, soft bottom, kelp forest, deep canyon, etc.
- Mix of degrees of habitat health ranging from pristine areas set aside for protection, to degraded, currently underused habitats set aside to allow recovery
- Preservation of key predator-prey relationships and life cycle stages

#### General geographic considerations—

- Geographic coverage across state and federal waters
- Distances between reserves
- Distances from port
- Potential impacts of displacement of fishing effort to other areas
- Locations of other types of human threats—e.g water quality, landslides, vessel traffic, MPWC
- Access by other target users, such as divers, kayakers, shore fishermen

#### Levels of use—

- Mix of options including full no-take zones, allowable harvest of selected species, commercial versus recreational catch, non-extractive and research uses, etc.
- Reserves that may be established to augment or benefit non-extractive activities, such as diving and research

#### Socioeconomics—

- Key socioeconomic analyses which should be considered to assist in the design of a biologically effective network which will allow continuation of sustainable fisheries
- Gear groups and ports affected, short and long-term effects, and potential for buffering or mitigating negative effects

- Economic uses that may be improved by designation of reserves

### Enforcement—

- Components of effective enforcement program
- Locations, shapes, etc. which enhance enforceability

### Education—

- Components of an effective education program on reserves for fishing community and the general public
- Education potential of reserve locations
- Links to general education strategies on fisheries (a separate working group)

### Research and Monitoring—

- Evaluation of biological changes within reserve
- Distinguishing between natural and anthropogenic changes
- Evaluation of potential spillover effect to local populations
- Socioeconomic monitoring of changes in the fishing industry
- Choosing readily measured indicators
- Value of reserve location as research site

### Timing—

- Potential for phasing of implementation
- Criteria for establishing a reasonable first phase
- How to achieve permanent protection, but allow flexibility for adaptive management based on improved knowledge

Most of the above categories apply to consideration of reserves in both state and federal waters. In addition, some specific categories to be addressed for federal or state processes are listed below.



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### Federal Waters—

- Define conditions when it is beneficial to extend state reserves to federal waters
- Evaluate type of extension that may be appropriate—orientation, etc.
- Evaluate potential for separate offshore reserves focused on biological hotspots correlated with persistent physical and oceanographic features
- Outline process for involvement of NMFS and PPMC

### State Waters--

- Describe MBNMS involvement in MLPA process
- Describe evaluation of success of MLPA process--range of acceptable outcomes and timelines for process
- Outline alternative process to be used if necessary

Timeline for drafting MBNMS framework action plan: January 2003 – April 2003

Timeline for ongoing work to develop full plan: 2003-2005.



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